SUGAR and PLANTATION NEWS

SUGAR PLANTATION MANAGERS' ANNUAL SESSION CONVENES TO DISCUSS INDUSTRIAL PROBLEM

With President A. W. T. Bottomley In the Chair—Insect Pests and Parasites, Plant Diseases, Field Practise and Cultivation, Milling, Marketing and Other Topics Receive Serious Attention

The thirty-fifth annual meeting of the Hawaiian Sugar Planters' Association convened at the chamber of commerce rooms Tuesday morning. The retiring president of the association, J. M. Dowsett, delivered his address as follows:

"Gentlemen:

"It is my duty as president of your association to open this, the 35th annual meeting of the association, and to all those in attendance I extend a hearty welcome.

"The keen interest shown in the business which was transacted at our last meeting by the large number of members who were in attendance was testimony enough to the importance and value of these annual meetings to the industry in which we are engaged and I hope that at this session the free exchange of ideas and experiences, particularly by those of us whose business it is directly to produce our sugar, will be of benedit and pleasure to all engaged in the sugar industry of this Territory.

'Future History'

"It is a trite saying, which present conditions in Europe do not contradict, that that country is happy which has no history, and it can be said with equal truth that the sugar industry of Hawaii is fortunate when the president of its association has to explore the mysterious future in order to find topics wherewith to pad his annual address, for a favorable season, heavy yields, good prices and peaceful, if not wholly contented labor, leave me little to say as to the past except that I trust our good fortune will kindle in us sentiments of gratitude and generosity, which will find expression in acts which correspond to them. That one deserving class will not be forgotten, I shall shortly show.

"The very few statistics I give you will take little time to read, and may be useful at least for reference.

"The past year gave us a new record in our crop of sugar, the total yield being 646,446 tons, this amount exceeding that of 1914, the next largest, by 29,408 tons.

The Weather Helped

"Some of the credit for this large yield is due to the exceptionally favorable weather in the summer of 1914, which especially benefited the non-irrigated plantations on the Island of Hawaii.

The average price for our product for the year ending October 31, last, based on the average Cuban basis for 96 degrees centrifugals, in New York, was 4.4934 cents per pound or $89.868 per ton.

"Good crops of sugar have been obtained in all the cane growing countries and with the yield of the beet crop on the mainland also large, as well as falling off in the world's consumption, lower prices were expected towards the close of the year.

Recent High Prices

"A scarcity of ocean tonnage, however, in the past few months, thereby delaying the marketing of the last of the 1915 Cuban crop, largely contributed to a sudden demand on the part of the eastern refiners for supplies of raw sugar to meet their requirements as this season of the year, resulting in the price of the raws again advancing until it reached the high point of the year early this month. Still, prices to consumers have never reached figures which worked a hardship to anyone.

"Small numbers of Filipinos have arrived during the past year, and as the result of the better knowledge of the superior labor conditions here, communicated no doubt by those here to their friends at home, a better class of these immigrants that what the pioneers consisted of has been obtained, and a high value is now placed on this labor by our managers. They, rapidly after their arrival, gain in weight and strength and are soon not only desirous but become well able to compete with their fellow workmen of the different races.

"The conclusion is clear that the advantages, which it was hoped would be derived by the Philippines, through some of its people being given an opportunity of working alongside of other labor, which is everywhere regarded as highly efficient, are being secured.

"No other labor, in which the association is directly interested, arrived during the year 1915.

Plantation Improvement

"The continued improvement in the domestic qualitions of our plantations claims some part in the improved health of our labor, which has been good during the year, and the wages now paid, if they do not satisfy all, leave little ground for complaint.

"The good prices obtained for our crop make the bonus payable to all labor on our sugar plantations receiving not more than $24 per month, equal to twenty per cent of the wages paid, which, is at the rate of $57.60 for the year, a substantial addition which I am sure none of us begrudge paying to this useful class of our population.

"The important work of the experiment station under Director Agee continues, and will be fully dealt with in the report of the experiment station committee, to be presented at this meeting.

A. W. T. BOTTOMLEY, New President of Hawaiian Sugar Planters' Association. Elected Yesterday * *

More Parasites on the Way

"Frederick Muir of the entomological department is again in the Orient, continuing his researches in connection with parasites on the anomola beetle, and I am sure we all hope that the success which has followed his efforts in the past will result in his ultimately securing control of what in time might become a serious menace to the sugar industry here.

"Up to the present it may be said that while he has to some extent been successful in his search for parasites, yet, as was to have been expected, he is meeting with difficulties in successfully breeding the parasites he has found, and solving the problem of safe transportation and successful introduction. It is, however, gratifying to learn from his latest advices that the outlook is very encouraging.

Progress on Disease Control

"In the pathological department the Lahaina disease still continues to baffle the efforts of the scientists to discover its origin or cause, but experiments now being made at the Waipio substation raise the hope that the cause of this devastating disease will be discovered. When this is found, it is believed that there will be no difficulty in finding a remedy for it.

"In the agricultural department the work of propagating seedling canes for distribution has continued, and a good supply of these is now available for those plantations that may be in need of them.

To Trash Or Burn

"Experiments with trash, to learn the best way to move it, are still being made and I expect that this important subject will be considered and discussed at future meetings at some length. It is not flattering to our self esteem that this apparently elementary question has not been settled to everyone's satisfaction years ago.

"Conditions in Europe for a year past have brought us face to face with a 'potash situation,' which, if not relieved sooner or later, may prove a very serious problem to us, as regards the supply of this important ingredient of our high-grade fertilizers, for our soils are not rich in this essential.

Utah Potash Coming

"Fortunately for the great agricultural industries, American enterprises and skill have been able to obtain from the deposits of alunite in the State of Utah standard, commercial grades of potash, and let us hope that the exploitation of this valuable national asset may result in our being able in a year or two hence to fertilize our tropical acres with American potash exclusively.

"As the result, to no small extent, of the data furnished by Dr. Norris and the committee on the manufacture of sugar and utilization of by-products in their last annual report to the association, is due the introduction of new and improved methods of milling and evaporation in many of our factories during the past year, and it is evident that we do not intend to lose our place as leaders in factory efficiency.

Congressional Visit

"During the spring of 1915 Hawaii was honored by a visit of some 100 U. S. congressmen, who spent a most strenuous fortnight visiting the larger islands of the Territory, which gave them an excellent opportunity to acquaint themselves at first hand with the details of the sugar industry.

"The outcome of his visit cannot but be favorable to the Territory.

"We have nothing to be ashamed of, nay, little of which we are not proud. This wide-awake, energetic, progressive community, which has been built up by American brains, upon the well-laid foundations, the builders of which were the American missionary fathers, has no apology to offer for what is found here.

"It contains all that goes to make up what is called civilization, and claims its place among the American people by its works in every form of human activity, which have never lowered the standard of America's highest ideal."

Biggest Crop on Record

Secretary W. O. Smith presented his annual report and the minutes of the meeting a year ago. He said that the sugar crop report for the year ending September 30, 1915, was presented, showing a total tonnage produced of 617,038 tons (short tons), being the largest crop thus far produced in these islands.

"Herewith is presented the crop report for the year ending September 30, 1915, showing a total tonnage for the year of 646,446 tons, an increase of 29,407 tons over 1914, as also a statement of the tonnage produced for the past ten years. These reports have been prepared by R. D. Mead, director of the Bureau of Labor and Statistics of the Association.

"During the year the trustees have held thirty seven meetings, Mr. Sydney M. Ballou has continued to represent the association at Washington and has rendered valuable services.

Old Directors Re-elected

On the next order of business, election of directors, the old board was re-elected on motion of J. T. Moir as follows: F. A. Schaefer, E. D. Tenney, E. F. Bishop, F. M. Swanzy, J. P. Cooke, George Rodiek, J. M. Dowsett, A. W. T. Bottomley and W. O. Smith.

A recess as usual until the afternoon to permit the trustees to elect officers having been suggested by the president. Mr. Smith said that this business ordinarily took only a few minutes and it would be a pity to have so much idle time. One of the committee reports might be taken up until twelve o'clock.

President Dowsett objected that it had always been the rule for the incoming president to take charge of the main proceedings.

E. D. Tenney said there was a committee room available for the trustees to meet in immediately, and on motion of E. F. Bishop a recess until eleven o'clock was declared.

Bottomley President

Upon the resumption of business Mr. Dowsett announced the following officers as having been elected:

President, A. W. T. Bottomley; vice-president, George Rodiek; secretary and treasurer, W. O. Smith; assistant secretary and treasurer, Louis J. Warren; auditor, J. W. Waldron.

Mr Bottomley, informally introduced by the retiring president, took the chair. He expressed his appreciation of the honor, saying it would be his endeavor to conduct the business in keeping with the many good examples set by predecessors. As the first item of business he called for the report of the experiment station committee.

J. F. C. Hagens, chairman of the committee, read the report.

Directors' Report

Dr. H. P. Agee, director of the experiment station, then commenced reading his report concerning the work of the year.

Anomala Is Quarantined

The most serious insect attacks during the year have been leafhopper and anomala beetle. Dr. Agee touched briefly on what had been done and on the search for parasites now being conducted. O. H. Swezey exhibited specimens of anomala, its parasites and enemies and told the planters what is being done to hold it in check. The anomala was discussed by managers E. K. Bull and James Gibb, the recent outbreak having been confined almost entirely to their plantations and to the Waipio experiment station. Waipio is under quarantine and no cane is being distributed from this center.

Black Alkali and Salt

At the afternoon session Dr. Agee read his report on the Lahaina disease and then called on P. S. Burgess, chief chemist of the experiment station for a supplementary report. Dr. Burgess said two-thirds of his time since May 15 had been devoted to a study of soil conditions. During that time he has made thirty-four complete analysis of soils and subsoils collected on irrigated plantations on Maui, Oahu and Kauai from fields where this disease is apparent and also from fields where the disease has not been observed. At an early stage in these investigations he found the old Hilgard methods of analysis unsatisfactory and discarded them for the modern bureau of soils methods.

In all thirty-four soils Dr. Burgess determined the alkali, available plant food and bacterial flora. Most of the soils where this disease was evident contained toxic amounts of carbonate of soda and he concluded that as only half the black alkali can be discovered by analysis the disease is probably caused by undue accumulation of soda salts in the colloidal films surrounding the soil particles. The bacterial condition of the soils was in all cases sufficient for healthy growth of cane.

Experiments Started

Cane, Dr. Burgess said, seems to be unusually resistant to both common salt and black alkali. He recommended as correctives the incorporation of organic matter, either trash or green manures, in the soil, drainage of affected areas, and dressings of gypsum. Tub experiments are now under way with Lahaina disease, using Yellow Caledonia and Lahaina cane, to test out these remedies.

In answer to a question George F. Benton of Ewa said he is trying out gypsum to counteract Lahaina disease but that results will not be forthcoming until 1917. "The proof of pudding is in the eating, and the proof of cane is in the grinding," Mr. Benton, remarked. "We will have to wait a while to see what we see."

Dr. H. L. Lyon said he had suggested soil poisons as the probable cause of the trouble six years ago, and referred to statements made by S. S. Peck in 1908.

Root Worms Cause Injury

Dr. Agee then asked Dr. Lyon to tell about the ravages of nematode worms. He said Heterodera radicicola is the worst, that it is omnipresent and infests many plants other than cane. The Italian lupine is especially susceptible. Replying to an inquiry by J. F. C. Hagens, Dr. Lyon thought the use of press cake and molasses had nothing to do with nematodes. Field No. 13, at Paunene was the worst he had ever seen, and neither press cake nor molasses had ever been used there. F. F. Baldwin corroborated this statement. Mr. Baldwin thought healthy cane immune to nematode attack.

Substation On Hawaii

Dr. Agee's statement of the need of a substation on Hawaii as a center from which to distribute new canes, caused lengthy discussion. He said new strains or mutations often occurred in canes and that there is need of trial plots where this can be studied.

James Campsie favored a substation in Hamakua near the end of the railroad, especially to propagate new varieties very few of which have ever got as far as Hamakua, he said.

E. Faxon Bishop asked how much land would be needed and how much of an establishment,—whether a scientific man would have to be located there in charge of it. Dr. Agee thought a few acres enough and that no new men need be employed. President A. W. T. Bottomley thought the idea excellent and asked some one to put it in the form of a motion where upon J. M. Dowsett moved and John T. Moir seconded that the establishment of a new substation on Hawaii be referred to the experiment station committee with power to act.

All In Favor Of It

Discussion of the motion by A. Lidgate, C. F. Eckart, C. B. Penhallow, J. T. Moir, J. F. C. Hagens, E. D. Tenney, J. M. Dowsett and E. F. Bishop emphasized the point that Hawaii needs more work done for it and that every one believes that if the branch station is established the work ought to be under the immediate supervision of Dr. Agee. David Forbes thought a non-Caledonian scientist ought to be at the head of the branch station and Dowsett amplified the remark by referring to the Hamakua cane and Hamakua managers as "all of one variety— Scotch"—John A. Scott favored the idea heartily and wanted it under the experiment station because "managers are not scientists." James Webster and J. W. Waldron also spoke in favor of it.

(Continued on Page Seven)

Census of Cane Varieties Crops of 1915, '16 and '17

By H. P. AGEE

A composite opinion of all the plantations of the association on the matter of cane varieties can be reached in no better way than by making a count of the number of acres devoted to each cane, and noting which varieties are being extended and which are being reduced. Two years ago we made such a census. The changes since then are rather striking. There are at the present time fifty-one varieties of cane which occupy areas of one acre or more. Two years ago there were forty-two. The comparative figures for the two counts are given as follows for the different islands.

	1913 Census	1915 Census
Hawaii	19 varities	28 varities
Kauai	6 "	16 "
Maui	9 "	15 "
Oahu	33 "	35 "

In point of area, Yellow Caledonia is still the most extensively cultivated variety, occupying 112,047 acres for the 1916 and 1917 crops, against 67,519 acres under the Lahaina variety. From the crop of 1915 to that of 1917, Yellow Caledonia has a slightly decreased area, while Lahaina shows a decline of 5637 acres.

Lahaina Going Back

Again we may record a decrease in the Lahaina area on each of the four islands. It is interesting to compare the 1913, 1915 and 1917 crop areas with respect to this variety, noting a total decline of 9452 acres between the 1913 and 1917 crops.

	1913 Crop Acres	1915 Crop Acres	1917 Crop Acres
Hawaii	66	26	26
Kauai	7,225	7,125	6,096
Maui	17,349	17,056	16,019
Oahu	16,568	13,187	9,616
Total	41,208	37,394	31,757

The third most important variety is D 1135, which now occupies an area of 8,801 acres for the 1916 and 1917 crops. Its rapid extension is shown as follows:

	1913 Acres	1915 Acres	1917 Acres
Hawaii	410	798	1,347
Kauai	18	343	1,382
Maui	28	510	1,100
Oahu	373	839	1,081
Total	829	2,490	4,910

Ten Varieties Now Lead

There are today ten varieties of cane which occupy areas of more than one thousand acres. Of these Yellow Caledonia, Lahaina, Striped Tip and Yellow Bamboo show smaller areas for 1917 than for 1913, while increased areas are reported on D 1135, Rose Bamboo, D 117, H 109, Yellow Tip and Striped Mexican.

There follows a tabular statement listing these varieties in the order of their total acreages at the present writing:

	1913 Crop	1915 Crop	1917 Crop
Yellow Caledonia	59,114	57,695	57,695
Lahaina	41,208	37,394	31,757
D 1135	829	2,490	4,910
Striped Tip	2,490	3,264	4,885
Rose Bamboo	3,740	3,264	4,885
D 117	2,377	2,557	2,791
Yellow Bamboo	683	1,194	1,978
H 109	1,325	969	2,787
Yellow Tip	...	39	876
Striped Mexican	21	186	1,756
	74	183	1,473
			1,016

The very rapid increase in the area of H 109 is one of the significant points of this table. Two years ago this Hawaiian seedling occupied but 88 acres, while there are now 1,756 acres planted to it for the 1916 and 1917 crops. This is the most rapid extension that has been recorded any variety. Detailed figures follow:

H 109 AREAS.

	1913 Crop.	1915 Crop.	1917 Crop.	1916 & 1917
Hawaii	7	35	35	
Kauai	17	130	130	
Maui	..	13	13	
Oahu	15	1,072	1,578	
Total	39	1,250	1,776	

Hawaiian Seedlings in Race

There are thirty-three Hawaiian seedlings which occupy areas of one acre and upwards. To these the H. S. P. A. plantations now devote 3269 acres, as against 822 acres two years ago. A comparison by islands with the previous census is given below:

Hawaiian Seedling Areas.

	1913 Census.	1915 Census.
Hawaii	103 acres.	341 acres.
Kauai	18 "	183 "
Maui	2 "	104 "
Oahu	699 "	2,641 "
Total	822 acres.	3,269 acres.

Ewa Plantation still has a larger area in Hawaiian seedlings than all the rest of the plantations; or 1817 acres against 1450. Oahu Sugar Co. has 617 acres under the H. seedlings, making a total of 2,436 acres for these two plantations, as compared with 833 for the remaining plantations of the Association.

Next to H 109, the most extensively cultivated Hawaiian seedling is H 20, with 400 acres to its credit for the 1916 and 1917 crops. There are three others which occupy areas of over 100 acres—H 227 with 284 acres, H 146 with 183 acres, and H 333 with 146 acres.

Rate of Increase

The following is a list of these and other H. seedlings which are important enough to have been planted to areas of ten acres or more: They are arranged according to the extent they are cultivated.

		1915	1916	1917	1916 and 1917
H 109	11	39	540	1216	1756
H 20	12	100	355	45	400
H 227	13	133	133	151	284
H 146	14	40	116	67	183
H 333	15	63	87	59	146
H 16	16	20	55	11	66
H 24	17	33	58	...	58
H 338	18	25	54	3	57
H 291	19	25	41	15	56
H 197	20	12	38	1	39
H 335	21	8	37	...	37
H 33	22	18	14	18	32
H 25	23	9	24	6	30
H 349	24	7	10	9	19
H 27	25	8	9	7	16
H 70	26	...	...	12	12
H 75	27	3	12	...	12
H 240	28	3	7	4	11
H 181	29	10	...	10	10

HAWAIIAN SUGAR CROP---1914-1915

FROM OCTOBER 1, 1914, TO SEPTEMBER 30, 1915.

(Compiled by Bureau of Labor and Statistics, Hawaiian Sugar Planters' Association)

ISLANDS	*TONS	TOTAL TONS
HAWAII		
Olaa Sugar Co., Ltd.	27,406	
Waiakea Mill Co.	16,141	
Hilo Sugar Co.	17,905	
Hawaii Mill Co., Ltd.	3,793	
Onomea Sugar Co.	21,320	
Pepeekeo Sugar Co.	11,948	
Honomu Sugar Co.	9,852	
Hakalau Plantation Co.	19,327	
Laupahoehoe Sugar Co.	11,730	
Kaiwiki Sugar Co., Ltd.	6,849	
Kukaiau Plantation Co.	4,672	
Hamakua Mill Co.	9,261	
Paauhau Sugar Plantation Co.	10,073	
Honokaa Sugar Co.	8,613	
Pacific Sugar Mill	7,253	
Niulii Mill and Plantation	3,098	
Halawa Plantation	2,840	
Kohala Sugar Co.	7,780	
Union Mill Co.	3,437	
Hawi Mill and Plantation	9,426	
Puakea Plantation	1,429	
Kona Development Co., Ltd.	3,444	
Hutchinson Sugar Plantation Co.	6,781	
Hawaiian Agricultural Co.	16,407	
		240,785
MAUI		
Pioneer Mill Co., Ltd.	33,229	
Olowalu Co.	2,173	
Wailuku Sugar Co.	19,177	
Hawaiian Commercial and Sugar Co.	56,780	
Maui Agricultural Co.	39,620	
Kaeleku Plantation Co., Ltd.	6,605	
Kipahulu Sugar Co.	2,699	
		160,283
OAHU		
Honolulu Plantation Co.	18,233	
Oahu Sugar Co., Ltd.	29,609	
Ewa Plantation Co.	29,502	
Apokaa Sugar Co., Ltd.	356	
Waianae Co.	6,400	
Waialua Agricultural Co., Ltd.	31,156	
Kahuku Plantation Co.	7,823	
Laie Plantation	1,171	
Koolau Agricultural Co., Ltd.	487	
Waimanalo Sugar Co.	5,260	
		129,997
KAUAI		
Lihue Plantation Co., Ltd.	21,494	
Grove Farm Plantation	4,007	
Koloa Sugar Co., The	9,502	
McBryde Sugar Co., Ltd.	15,458	
Hawaiian Sugar Co.	24,706	
Gay & Robinson	5,259	
Waimea Sugar Mill Co., The	1,404	
Kekaha Sugar Co., Ltd.	15,078	
Estate V. Knudsen	795	
Kilauea Sugar Plantation Co.	6,733	
Makee Sugar Co.	10,944	
		115,380
Total		646,445

	*TONS	TOTAL TONS
C. Brewer & Co., Ltd.		
Hakalau Plantation Co.	19,327	
Hawaiian Agricultural Co.	16,407	
Hilo Sugar Co.	17,905	
Honolulu Plantation Co.	18,233	
Honomu Sugar Co.	9,852	
Hutchinson Sugar Plantation Co.	6,781	
Kilauea Sugar Plantation Co.	6,738	
Olowalu Co.	2,173	
Onomea Sugar Co.	21,320	
Paauhau Sugar Plantation Co.	10,073	
Pepeekeo Sugar Co.	11,948	
Wailuku Sugar Co.	19,177	
Waimanalo Sugar Co.	5,260	
		165,189
Alexander & Baldwin, Ltd.		
Hawaiian Commercial and Sugar Co.	56,780	
Hawaiian Sugar Co.	24,706	
Kahuku Plantation Co.	7,823	
Koolau Agricultural Co., Ltd.	487	
Laie Plantation Co.	1,171	
Maui Agricultural Co.	39,620	
McBryde Sugar Co., Ltd.	15,458	
		146,045
H. Hackfeld & Co., Ltd.		
Grove Farm Plantation	4,007	
Hawaii Mill Co., Ltd.	3,793	
Kekaha Sugar Co., Ltd.	15,078	
Kipahulu Sugar Co.	2,699	
Koloa Sugar Co., The	9,502	
Kona Development Co., Ltd.	3,444	
Lihue Plantation Co., Ltd.	21,494	
Oahu Sugar Co., Ltd.	29,609	
Pioneer Mill Co., Ltd.	33,229	
Waimea Sugar Mill Co., The	1,404	
		124,259
Castle & Cooke, Ltd.		
Apokaa Sugar Co., Ltd.	356	
Ewa Plantation Co.	29,502	
Kohala Sugar Co.	7,780	
Waialua Agricultural Co., Ltd.	31,156	
		68,794
Theo. H. Davies & Co., Ltd.		
Halawa Plantation	2,840	
Hamakua Mill Co.	9,261	
Kaeleku Plantation Co., Ltd.	6,605	
Kaiwiki Sugar Co., Ltd.	6,849	
Kukaiau Plantation Co.	4,672	
Laupahoehoe Sugar Co.	11,730	
Niulii Mill and Plantation	3,098	
Union Mill Co.	3,437	
Waiakea Mill Co.	16,141	
		64,633
Bishop & Co.		
Olaa Sugar Co., Ltd.	27,406	
		27,406
F. A. Schaefer & Co., Ltd.		
Honokaa Sugar Co.	8,613	
Pacific Sugar Mill	7,253	
		15,866
Makee Sugar Company		
Makee Sugar Co.	10,944	
		10,944
Hind, Rolph & Co.		
Hawi Mill and Plantation	9,426	
		9,426
Henry Waterhouse Trust Co., Ltd.		
Gay & Robinson	5,259	
Puakea Plantation	1,429	
		6,688
J. M. Dowsett		
Waianae Co.	6,400	
		6,400
H. M. Von Holt		
Estate V. Knudsen	795	
		795
Total		646,445